



Geoduck Aquaculture Pilot Project

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Geoduck Trivia

A developing geoduck will bury itself at a rate of 1 foot per year until it reaches about 3 feet deep.

Geoduck feed on phytoplankton, single-celled marine algae.

PVC tubes and netting are used in intertidal planting of geoduck to protect the seed from predators.

PVC tubes are removed after a few years of providing protection.

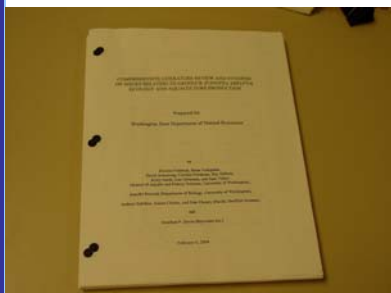
Predators of newly planted geoduck seed are sea stars, crabs, fish, and birds.

Geoduck Pilot Project

Washington's DNR has now been working on the Geoduck Aquaculture Pilot Project for one year (see earlier editions of this e-Newsletter for project descriptions). The project will assess the effects of leasing state-owned aquatic lands for geoduck aquaculture and will result in a recommendation to the 2005 Legislature.

Scientific/Economic Studies

DNR has three different contracts (University of Washington School of Aquatic and Fishery Sciences, Pacific Shellfish Institute, and Baywater, Inc.)



that all feed into our efforts to answer questions about the effects of geoduck aquaculture on the natural environment. The **UW** has completed three reports: looking at what is known about geoduck in existing scientific literature; an analysis of historic data on geoduck planting efforts conducted by the state; and an assessment of the current state of knowledge relative to geoduck genetics and requirements

for stock management. **Pacific Shellfish** Institute has prepared reports on geoduck ecology and physiology and production practices, and research findings on intertidal and subtidal planting of geoducks. **Baywater, Inc.** has written reports on hatchery practices and research findings on salinity and temperature effects on the planting success of geoducks.

We also have a fourth contract, this one with Northern Economics, Inc., to provide us with a detailed picture of world geoduck production and consumption trends.

Because all of these reports contain or will contain trade secrets and research data, they are proprietary information and are not currently available for distribution.

Final reports from the contractors will be completed by the end of September, and will contain a design for an on-the-ground project to collect information about the effects of geoduck aquaculture. The reports also will propose Best Management Practices for geoduck aquaculture on state-owned aquatic lands. At that point, DNR will analyze the work, and a recommendation will be prepared for the 2005 Legislature as to whether or not DNR should allow state-owned aquatic lands to be used for private

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We're on the Web!

www.dnr.wa.gov/htdocs/aqr/shellfish/aqua/index.htm

geoduck aquaculture or whether additional field data is needed to make a decision.

Enforcement

In mid-June DNR called together and met with a group of people from the Washington State Departments of Health, Fish & Wildlife, 18 Puget Sound treaty tribes, and the Northwest Indian Fisheries Commission—all of whom work on geoduck enforcement—to talk about issues related to geoduck aquaculture. Some of the areas discussed include contract compliance, managing broodstock correctly, and the way the aquaculture product is brought to market.

Enforcement is important in order to ensure the safety of the product on the market and to ensure there is minimal impact on habitat. A sub-committee has been formed that will continue meeting on this issue.



Phase II Pilot Project & Budget

To align with the state's budget process, DNR has begun preparing a budget for the next phase of the Pilot Project. As a follow up of Phase I analysis, the Phase II project will be designed to supply a foundation of data and an experimental design for present and future Puget Sound experiments. A number of experimental plots will be established. With industry cooperation, some may take advantage of already planted sites so that researchers don't have to wait for the geoduck to grow to certain sizes before being able to conduct experiments. While the study design is still being formulated, some of the items being looked at include sediment, population density/diversity, genetics, and water quality.

Implementation Working Group

If DNR and the 2005 Legislature decide to move forward to allow geoduck aquaculture on state-owned aquatic lands, there are myriad details to work out before this activity could actually take place. Such details include business practice decisions (Should we lease, auction, or use some other method? What rate should be charged so the state makes a fair return on the public's investment? How are boundaries surveyed and marked? How many acres should be let?);



environmental management (broodstock management, predator management, eelgrass protection, noise impacts, impacts to biota, recreational impacts); environmental review (what process to go through); statute changes; tribal issues; and Phase II study sites (where, how many, who). Sub-committees will address each of these details over the next 6 months.

Field Trips & Meetings

DNR staff went out in the field in July with two geoduck aquaculturists to see their operations first-hand. We visited South Sound beaches in Eld and Henderson Inlets and around Hartstine Island. We observed tube placement, seed planting, different netting trials, and harvesting on a variety of beach types and we also learned a great deal about the business of geoduck planting and harvesting.



DNR staff, and UW and Pacific Shellfish Institute researchers met with members of the Pacific Coast Shellfish Growers Association in July to talk about Phase II of the Pilot Project. Also discussed was how DNR could use the growers knowledge of Puget Sound to design efficient test plots and partner in future studies. Budget proposals will be submitted in late August. Part of the UW contract is to design Phase II study parameters and test plot locations that would provide more complete information about geoduck aquaculture and its effects.

Feedback Wanted

We are always looking for feedback about geoduck aquaculture and this Pilot Project. Please contact either DNR project coordinator: Jeanne Koenings (360) 902-1080 or Celia Barton (360) 902-1025.

More about this Pilot Project on our website:

www.dnr.wa.gov/htdocs/aqr/shellfish/aqua/index.htm